67 - 77A A 30

CONTENTS

SECTION B—VOL. LXII

No. 1—July 1965

PAGE

The New Physiology of Vision. Chapter XVIII. The Visual Synthesis of Colour . . . . . Sir C. V. Raman 1

The New Physiology of Vision. Chapter XIX. Perception of Colour and the Trichromatic Hypothesis . . . . . Sir C. V. Raman 10

On a Petrified Palm Petiole from Mohgaon Kalan Area, Madhya Pradesh . . . . . Miss Vimala K. Menon 17

On the Culture of the Diatom *Melosira sulcata* (Ehr.) Kutzing . . . . . V. D. Ramamurthy and K. Krishnamoorthy 25

Notes on Some Fungi from South India—IX . . . . T. S. Ramakrishnan 32

Studies in the Physiology of Tobacco. X. Individual and Combined Effects of GA_3, IAA and MH on Plants Grown in Natural Light and in Shade . . . . . U. S. Gupta 36

No. 2—August 1965

The New Physiology of Vision. Chapter XX. Superposition and Masking of Colours . . . . . Sir C. V. Raman 47

The New Physiology of Vision. Chapter XXI. The Green Colour of Vegetation . . . . . Sir C. V. Raman 53

Subcellular Electrical Characteristics of Amphibian Muscle. III. Intracellular and Intercellular Electromigration of Protein Components in Gastrocnemius Muscle . . . . R. V. Krishnamoorthy and Karumuri S. Swami 58

Studies on the Sterility Mosaic Disease of Pigeon Pea. I. Transmission of the Disease . . . P. Narayanasamy and K. Ramakrishnan 73

Biochemical Studies on Red and White Muscles of *Caranx sexfasciatus* Quoy and Gaimard. I. Acid-Soluble and Acid-Insoluble Phosphorus Compounds . . . . . K. S. P. Bhushana Rao 87

Studies on Some Little-Known Spiders of the Family Argiopidae from India . . . . . B. K. Tikader 92

Studies on Seeds of Various Taxa of *Utricularia* Occurring in West Bengal . . . . . V. Abraham and K. Subramanyam 97

No. 3—September 1965

PAGE

The New Physiology of Vision. Chapter XXII. The Colours of Flowers . . . . . Sir C. V. Raman 103

The New Physiology of Vision. Chapter XXIII. The Colours of the Roses . . . . . Sir C. V. Raman 111

Studies on Forecasting Outbreaks of Blast Disease of Rice. I. Influence of Meteorological Factors on Blast Incidence at Cuttack . . . . . S. Y. Padmanabhan 117

Studies on Sterility Mosaic Disease of Pigeon Pea. II. Carbohydrate Metabolism of Infected Plants . . P. Narayanasamy and K. Ramakrishnan 130

On Some New Species of Spiders of the Family Oxyopidae from India . . . . . B. K. Tikader 140

Chromosome Numbers in Species of *Mentha* . . . . . S. N. Sobti 145

Effect of Some Organic Acids on Leaf Phosphatase from French Beans . . . . . J. J. Rao 149

Chromosome Numbers in Some Species of *Cymbopogon* . . . . . Bal Krishen Gupta 155

No. 4—October 1965

The New Physiology of Vision. Chapter XXIV. Floral Pigments and the Perception of Colour . . . . . Sir C. V. Raman 159

The New Physiology of Vision. Chapter XXV. The Colours of Natural and Synthetic Gemstones . . . . . Sir C. V. Raman 165

Preliminary Observations on the Interaction of Different Rice Soil Types to Inoculation of Blue-Green Algae in Relation to Rice Culture . . . . . R. Subrahmanyan, G. B. Manna and S. Patnaik 171

On the Occurrence of the Symbiotic Alga, Chlorosarcina in the Caudal Lamella of Damsel Fly Nymphs . . . A. M. Selvaraj and S. V. Job 176

A New Bothid Flatfish *Cephalopsetta ventrocellatus* Gen. et Sp. Nov. from Bay of Bengal . . . . . S. Dutt and K. Hanumantha Rao 180

The Chemical Composition of the Lamellibranch *Donax cuneatus* Linn. . . . . . A. Abdul Rahaman 188

Foramina, Fossa and Vacuities in the Skull and Lower Jaw of Mud Turtle, *Trionyx gangeticus* (Cuv.) . . . . . D. K. Mansharamani 195

No. 5—November 1965

PAGE

The New Physiology of Vision. Chapter XXVI. Structural Colours . . . . . Sir C. V. Raman 203

The New Physiology of Vision. Chapter XXVII. The Colours of Interference . . . . . Sir C. V. Raman 209

Developmental Studies on *Cabomba caroliniana* Gray. I. Ovule and Carpel . . . . . M. V. Ramji and D. Padmanabhan 215

Studies on Transpiration in Millipedes. II. Respiration and Water Loss in *Spirostreptus asthenes* . . . S. K. Dwarakanath and S. V. Job 224

Purple Blotch Disease of Onions in Punjab. III. Control Measures . . . . . V. R. Pandotra 229

A Preliminary Report on the Diurnal Rhythm in the Locomotor Activity of Pill-Millipede, *Arthrosphaera dalyi* (Pocock) . . . . . Al. Paulpandian 235

Variation in the Alkaloid Content and Morphology of Four Geographical Races of *Rauvolfia serpentina* Benth. . . . . Miss Rajdulari Dhar 242

No. 6—December 1965

The New Physiology of Vision. Chapter XXVIII. Observations with a Neodymium Filter . . . . . Sir C. V. Raman 245

The New Physiology of Vision. Chapter XXIX. The Reproduction of Colour . . . . . Sir C. V. Raman 248

Fertility Build-up of Rice Field Soils by Blue-Green Algae . . . . . R. Subrahmanyan, L. L. Relwani and G. B. Manna 252

Respiratory Metabolism in *Martesia fragilis* in Relation to Body Size and Nitrogen . . . . . V. V. Srinivasan 273

Foramina-fossa and Vacuities in the Skull of *Crocodilus porosus* Schneider . . . . . D. K. Mansharamani 280